



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,294	08/10/2001	Robert M. Best	493-27-3	8277
996 7590 02/04/2008 GRAYBEAL, JACKSON, HALEY LLP 155 - 108TH AVENUE NE SUITE 350 BELLEVUE, WA 98004-5973			EXAMINER D'AGOSTINO, PAUL ANTHONY	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 02/04/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/928,294

Applicant(s)

BEST, ROBERT M.

Examiner

PAUL A. D'AGOSTINO

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007 and 17 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 375,378-381,383,386-388 and 392-394 is/are pending in the application.
- 4a) Of the above claim(s) 376,377,382,384,385 and 389-391 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 375,378-381,383,386-388 and 392-394 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This responds to Applicant's Arguments/Remarks filed on 6/29/2007 and 10/17/2007. Claims 1-374, 376-377, 382, 384-385, and 389-391 have been cancelled. Claims 375, 378-381, 383, 386-388, and 392-393 are now pending in this application.

Remarks

1. This acknowledges the amendments to the specifications and drawings in Applicant's Arguments/Remarks filed on 6/29/2007 found on pages 2 and 15.
2. This also acknowledges and concurs with Applicant's response to the Notice of Non-Compliant Amendment. claims drawn to a "coordinates memory" are not new matter and claims drawn to flexible "joint(s)" are cancelled.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 375, 378-381, 383, and 386-387 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d

1647 (1987). Claim 375 recites the terms a processor "for executing" "for converting", "for generating", and "for digitally rendering", a touch sensitive panel "for detecting", and a memory "for storing". These terms are not positively recited. Examiner suggests the claims be amended to read positively e.g., "which executes".

Claim Rejections - 35 USC § 103

5. The Examiner will present herein that three dimensional rendering using polygons in a hand held gaming device with a self contained electric power source is prima facie obvious as a natural progression in the art. That is to say, one of ordinary skill in the art would reasonably expect three dimensional rendering of polygons in a hand held device to come about as processing power improved and losses of power were minimized.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 375, 378-381, 383, 386-388, and 392-393 are rejected under 35 U.S.C. 103(a) as being unpatentable over the PSone portable (see <http://www.answers.com/topic/playstation-1>) of record in view of U.S. Patent No. 6,163,313 to Aroyan et al. (Aroyan).

In Reference to Claim 375

PSone is a handheld gaming system containing:

- (a) a housing of suitable size and weight for hand held use (See image, page 2);
- (b) a processor for executing a game program to generate simulated 3-dimensional player controlled object moving in a game space (PSone has a processor and performs this function; the PSone teaches polygons to manipulate a player controlled image on a screen generated in response to corresponding player input);
- (c) a controller for manually operated input;
- (d) coordinates memory in said housing for storing at least a portion of a sequence of 2-dimensional coordinates of said touched locations, a corresponding sequence of 3-dimensional spatial coordinates of a portion of said player-controlled object, and a corresponding sequence of 2-dimensional coordinates of display locations on said discrete display device that are different in at least one value than said corresponding 2-dimensional coordinates of touched locations (PSone has a memory and the structure is capable of performing this intended use);

(e) a processor in said housing for converting said sequence of 2-dimensional coordinates of touched locations from said coordinates memory to said sequence of 3-dimensional spatial coordinates for storage into said coordinates memory in said housing (PSone has a processor and the structure is capable of performing this intended use; the PSone contains operation detecting circuitry on the display screen. As combined with a touchscreen the display screen necessarily detects a touched coordinate in the display device to monitor input. The processor in the PSone determines an operation area in the display that is detected, and executes a predetermined process on the polygon data to provide a player with proper display in response to the input);

(f) a processor in said housing for generating simulated motion of at least a portion of said player-controlled object moving through said sequence of 3-dimensional spatial coordinates in said simulated 3-dimensional game space (PSone has a processor and the structure is capable of performing this intended use; the PSone inherently contains detection circuitry. The circuitry must necessarily provide location coordinates to the processor in response to input so the game can track the player's input correctly. The PSone further contains a processor for generating successive images of areas in the game space in response to the manual operation and manipulation of the location of the input); and

(g) a processor in said housing for digitally rendering displayable pixels for display on said discrete display device from at least a portion of said first polygon vertex data that represents at least a portion of said 3-dimensional player-controlled object

moving through said sequence of display locations on said discrete display device as specified by said 2-dimensional coordinates in said coordinates memory (PSone has a processor and performs this function; the PSone contains operation detecting circuitry on the display screen. As combined with a touchscreen the display screen necessarily detects a touched coordinate in the display device to monitor input. The processor in the PSone generates data portions for display from respective operation areas on the display device. The processor determines which area of the screen was touched by the coordinate area detected. The processor executes a predetermined process corresponding to a touched operation area);

However, the PSone fails to disclose (a') a hand-held electric battery and (c') a transparent touch sensitive-panel positioned on a discrete display device in said housing, said panel for detecting a variable sequence of locations touched on said panel by a manually operated physical object when said physical object is moving in contact with the touch sensitive surface of said panel between said locations.

One of ordinary skill in the art would recognize that a self contained power supply is necessary for portable game playing. The PSone suggests to one of ordinary skill in the art a portability in game systems, though correctly pointed out by the applicant, in a car due to increased power availability thereby facilitating processing power necessary for 3-D graphics and polygonal rendering.

It would therefore be obvious to one of ordinary skill in the art at the time of the invention was made to incorporate a self contained power supply into the PSone to make the game fully and completely portable to a player.

PSone is disclosed to have an LCD screen without touchscreen ability. In a similar device, Aroyan discloses a touchscreen for use with standard LCD screens (see column 2 lines 43-51). Aroyan discloses the touchscreen senses manually manipulated objects vary selectable directions on the screen (see column 1 lines 5-18). When combined with the PSone, the touchscreen would be used to control the motion of the player controlled object. Aroyan also discloses a touchscreen that senses variable locations of a manually operated physical object (see column 1 lines 5-18). When combined with the PSone, the control of the object would change the varied in response to corresponding motion of the manually operated physical object as is well known in 3-D gaming.

One of ordinary skill in the art would realize that it is advantageous to provide a screen with a controller on a portable device to enable play without carrying a spare controller.

It would be obvious for one of ordinary skill in the art to combine the touchscreen as taught by Aroyan with the PSone to increase portability by not having to carry a spare controller.

In Reference to Claim 378-379

The PSone teaches a player controlled object is generated in variable directions in game space in response to corresponding motion to that supplied by player input. However, the PSone does not disclose the ability to show a multi-fingered hand or a grasping hand to move in concert with the first object in response to player input. At the

time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to display player control of an object because Applicant has not disclosed that display of a multi-fingered or grasping hands of a second-player controlled object provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the player controlled object of the PSone to incorporate the ability to control two or more objects to correspond to game storyline needs, or allow the player to play a game needing more than one player (a sports game for example) and for PSone and applicant's invention, to perform equally well performing the same function of controlling a second object considering the story line of the video game and abilities of the game characters.

Therefore, it would have been prima facie obvious to the PSone to obtain the invention as specified in Claims 378-379 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of PSone.

In Reference to Claim 380

The PSone displays a player controlled object that is rendered from different viewpoints in the game space from which the player controlled object is displayed on the display screen.

In Reference to Claim 381

The PSone renders pixel data that represents a player controlled object from a variable 3-D viewing angle controlled by the player via the control device and discloses moving a character in a 3-D game space in response to corresponding player input. A partial view and one that moves in a variable direction is necessarily present in the PSone wherein the PSone generates successive images of areas in the game space in response to the manual operation and manipulation of the location of the input.

In Reference to Claims 388 and 394

See rejection of Claims 375-387. Further, a data storage medium encoded with a game program for use in a hand-held game system is necessarily present to include a touch sensitive panel for detecting a variable sequence of locations touched by a manually operated physical object when such physical object is moving in contact and continuous contact with the touch sensitive surface. Further, the PSone contains a processor in the housing that executes a game program of instructions comprising: to generate 3-D graphical rendering and polygon vertex data to represent variable shapes; to convert 2-D coordinates to 3-D spatial coordinates, to generate simulated motion of at least a portion of a player-controlled object moving through the game-space, to digitally render displayable pixels from the the polygon vertex data; and to display the rendered pixels.

In Reference to Claim 386-387 and 392

The PSone display is an LCD and the PSone housing contains a processor and a graphics co-processor. The PSone discloses the claimed invention except for the processors are the same processor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the processors, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art (*In re Karlson*, 136 USPQ 184). Further, it would be obvious to one of ordinary skill in the art at the time of the invention to incorporate a single processor to process game data and graphics data to reduce manufacturing costs and costs to the consumer.

In Reference to Claim 393

The PSone is disclosed to have memory stick memory. This is well known to be a semiconductor memory. The PSone also uses an optically encoded disc.

9. Claim 383 is rejected under 35 U.S.C. 103(a) as being unpatentable over the PSone in view of U.S. Patent No. 6,238,291 to Fujimoto et al. (Fujimoto).

The PSone discloses a processor that executes a gaming process. The PSone fails to disclose a program storage medium that is able to download data from a separately housed gaming system. In an analogous device, Fujimoto discloses a program storage medium that is able to download data from a separately housed gaming system (see figure 1). One of ordinary skill in the art would realize players

would enjoy the ability to continue a game from a console based system on a hand held system when the player had to leave the area of the console based system.

It would therefore be obvious to one of ordinary skill in the art at the time of the invention to allow the player to download a current game to a hand held game to continue playing when the player had to leave the area of the console based game.

Response to Arguments

10. Applicant's arguments filed 6/29/2007 (summarized on Page 23) have been fully considered but they are not persuasive.

a. Applicant argues none of the cited references teach or suggest applicant's claim limitation of a coordinates memory for storing, a processor for converting, and a processor for generating polygone vertex data (claims shortened for clarity). Examiner respectfully disagrees. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Claim 375 recites the terms a coordinates memory "for storing", a processor "for converting" and "for generating". These terms are not positively recited. As claimed, PSone has sufficient structure and is capable of performing the above intended uses. Thus, the rejection of these claims is maintained. To advance prosecution, Examiner assumes positive claim language and has rejected the claims using prior art of record.

b. Applicant argues that combining the teachings of the cited references would fail to teach or suggest all of the Applicant's claimed limitations. Examiner respectfully disagrees. Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Examiner has mapped all claim limitations to the prior art and provided appropriate motivation to combine where appropriate. Thus the rejection is maintained.

c. Applicant argues that the invention was not considered as having a reasonable expectation of success by those skilled in the art on Applicant's priority date. Examiner respectfully disagrees. Applicant argues that the cited art fails to provide a reasonable expectation of success for polygon graphics to generate a character in a hand-held game. More specifically it is argued that the word "polygon" does not appear in the hand-held game system Gameboy Advance as described in the patent of Miyamoto nor in the processor of the Gameboy Advance as described in the patent of Kawase; and that these patents prove that the emphasis was on the "use of sprites to the exclusion of polygon graphics." (Applicant's Arguments/Remarks page 19). Applicant's conclude that the omission can only be explained by the lack of a reasonable expectation of success for hand-held games using polygon graphics to generate and display 3-D characters. Examiner reasonably believes Applicant has

provided provocative questions and conclusory remarks but has failed to provide evidence to explain the existence or non-existence of a reasonable expectation of success in the prior art of record. Examiner has presented PSone and Aroyan references. This prior art can be modified or combined to reject claims as prima facie obvious as long as there is a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir1986). In this case, it is reasonable to expect the PSone system combined with Aroyan to perform the intended use function as claimed by Applicant. The use of three dimensional rendering using polygons in a hand held gaming device with a self contained electric power source is prima facie obvious as a natural progression in the art. That is to say, one of ordinary skill in the art would reasonably expect three dimensional rendering of polygons in a hand held device to come about as processing power improved and losses of power were minimized. Thus, the rejection is maintained.

d. Applicant argues that Applicant's invention was not obvious to people of ordinary skill in the art more than one year after applicant's priority date and that a period of two and a half year's elapsed after applicant's priority date before applicant's invention was reinvented by others. Examiner respectfully disagrees for the reasons provided in c). Further, issues best characterized as secondary considerations must be presented under 37 CFR §1.132. Thus, the rejection is maintained.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. D'Agostino whose telephone number is (571) 270-1992. The examiner can be reached on Monday - Friday, 7:30 a.m. - 5:00 p.m..

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hotaling can be reached on (571) 272-4437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number:
09/928,294
Art Unit: 3714

Page 15

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paul A. D'Agostino
Examiner
Art Unit 3714

PAD



JOHN M. HOTALING, II
PRIMARY EXAMINER